Ordering number :EN5847

P-Channel Silicon MOS FET

FW113

S/W Load Applications

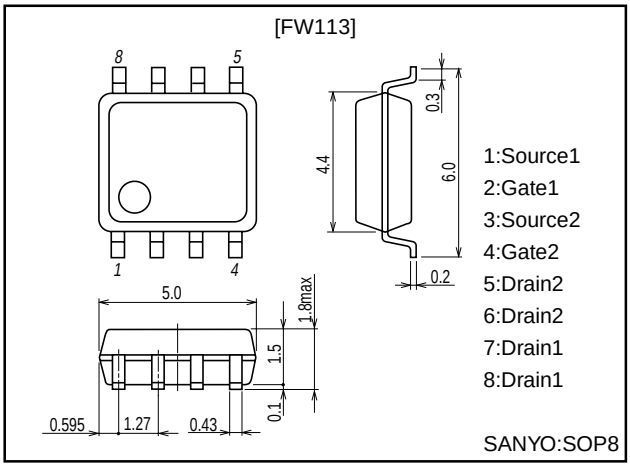
Features

· 4V drive.
· Low ON resistance.

Package Dimensions

unit:mm

2129



Specifications

Absolute Maximum Ratings at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V_{DSS}		–30	V
Gate-to-Source Voltage	V_{GSS}		±20	V
Drain Current (DC)	I_D		–5	A
Drain Current (pulse)	I_{DP}	PW≤10μs, duty cycle≤1%	–32	A
Allowable Power Dissipation	P_D	Mounted on ceramic board (1000mm^2×0.8mm) 1unit	1.7	W
Total Dissipation	P_T	Mounted on ceramic board (1000mm^2×0.8mm)	2.0	W
Channel Temperature	Tch		150	˚C
Storage Temperature	Tstg		–55 to +150	˚C

Electrical Characteristics at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
D-S Breakdown Voltage	$V_{(BR)DSS}$	I_D=–1mA, V_{GS}=0	–30			V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=–30V, V_{GS}=0			–100	μA
Gate-to-Source Leakage Current	I_{GSS}	V_{GS}=±16V, V_{DS}=0			±10	μA
Cutoff Current	$V_{GS(off)}$	V_{DS}=–10V, I_D=–1mA	–1.0		–2.5	V
Forward Transfer Admittance	| yfs |	V_{DS}=–10V, I_D=–5A	5	8		S
Static Drain-to-Source ON-State Resistance	$R_{DS(on)}1$	I_D=–5A, V_{GS}=–10V		42	53	mΩ
	$R_{DS(on)}2$	I_D=–2A, V_{GS}=–4V		85	120	mΩ
Input Capacitance	Ciss	V_{DS}=–10V, f=1MHz		820		pF
Output Capacitance	Coss	V_{DS}=–10V, f=1MHz		470		pF
Reverse Transfer Capacitance	Crss	V_{DS}=–10V, f=1MHz		230		pF
Turn-ON Delay Time	$t_{d(on)}$	See specified Test Circuit		15		ns
Rise Time	t_r	See specified Test Circuit		150		ns
Turn-OFF Delay Time	$t_{d(off)}$	See specified Test Circuit		85		ns
Fall Time	t_f	See specified Test Circuit		90		ns
Total Gate Charge	Qg	V_{DS}=–10V, V_{GS}=–10V, I_D=–5A		25		nC
Gate-to-Source Charge	Qgs	V_{DS}=–10V, V_{GS}=–10V, I_D=–5A		5		nC
Gate-to-Drain ("Miller") Charge	Qgd	V_{DS}=–10V, V_{GS}=–10V, I_D=–5A		7		nC
Diode Forward Voltage	V_{SD}	I_S=–5A, V_{GS}=0		–1.0	–1.5	V

Switching Time Test Circuit